

IN THE CLAIMS

Please cancel claims 1 and 2 without prejudice or disclaimer.

Please replace claims 3, 4, 10-13, 15, 18 and 19 with the following amended versions. In addition, please add new claims 20 and 21. For the Examiner's convenience, all pending claims are listed below.

3. (Once Amended) An isolated antibody which specifically binds to a polypeptide selected from the group consisting of:

- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1,
- b) a polypeptide comprising a naturally-occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1, said naturally-occurring amino acid sequence encoding a polypeptide having protease inhibitor activity, and
- c) an immunogenic fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

4. (Once Amended) A diagnostic test for a condition or disease associated with the expression of GAPIP in a biological sample, the method comprising:

- a) combining the biological sample with an antibody of claim 3, under conditions suitable for the antibody to bind the polypeptide and form an antibody: polypeptide complex; and
- b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

5. The antibody of claim 3, wherein the antibody is:

- (a) a chimeric antibody;
- (b) a single chain antibody;
- (c) a Fab fragment;
- (d) a F(ab')₂ fragment; or
- (e) a humanized antibody.

6. A composition comprising an antibody of claim 3 and an acceptable excipient.

7. A method of diagnosing a condition or disease associated with the expression of GAPIP in a subject, comprising administering to said subject an effective amount of the composition of claim 6.

8. A composition of claim 6, wherein the antibody is labeled.

9. A method of diagnosing a condition or disease associated with the expression of GAPIP in a subject, comprising administering to said subject an effective amount of the composition of claim 8.

10. (Once Amended) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 3, the method comprising:

- a) immunizing an animal with a polypeptide comprising the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response;
- b) isolating antibodies from said animal; and
- c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which binds specifically to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

11. (Once Amended) A polyclonal antibody produced by a method of claim 10.

12. (Once Amended) A composition comprising the polyclonal antibody of claim 11 and a suitable carrier.

13. (Once Amended) A method of making a monoclonal antibody with the specificity of the antibody of claim 3, the method comprising:

- a) immunizing an animal with a polypeptide comprising the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response;
- b) isolating antibody producing cells from the animal;
- c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells;
- d) culturing the hybridoma cells; and
- e) isolating from the culture monoclonal antibody which binds specifically to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

14. A monoclonal antibody produced by a method of claim 13.

15. (Once Amended) A composition comprising the monoclonal antibody of claim 14 and a suitable carrier.

16. The antibody of claim 3, wherein the antibody is produced by screening a Fab expression library.

17. The antibody of claim 3, wherein the antibody is produced by screening a recombinant immunoglobulin library.

18. (Once Amended) A method for detecting a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in a sample, the method comprising:

- a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
- b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in the sample.

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19. (Once Amended) A method of purifying a polypeptide comprising the amino acid sequence of SEQ ID NO:1 from a sample, the method comprising:

- a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
- b) separating the antibody from the sample and obtaining the purified polypeptide comprising the amino acid sequence of SEQ ID NO:1.

20. (New) An isolated antibody of claim 3, which specifically binds to an immunogenic fragment having at least 15 contiguous amino acid residues of a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

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21. (New) An isolated antibody of claim 3, which specifically binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.